FIG. 1

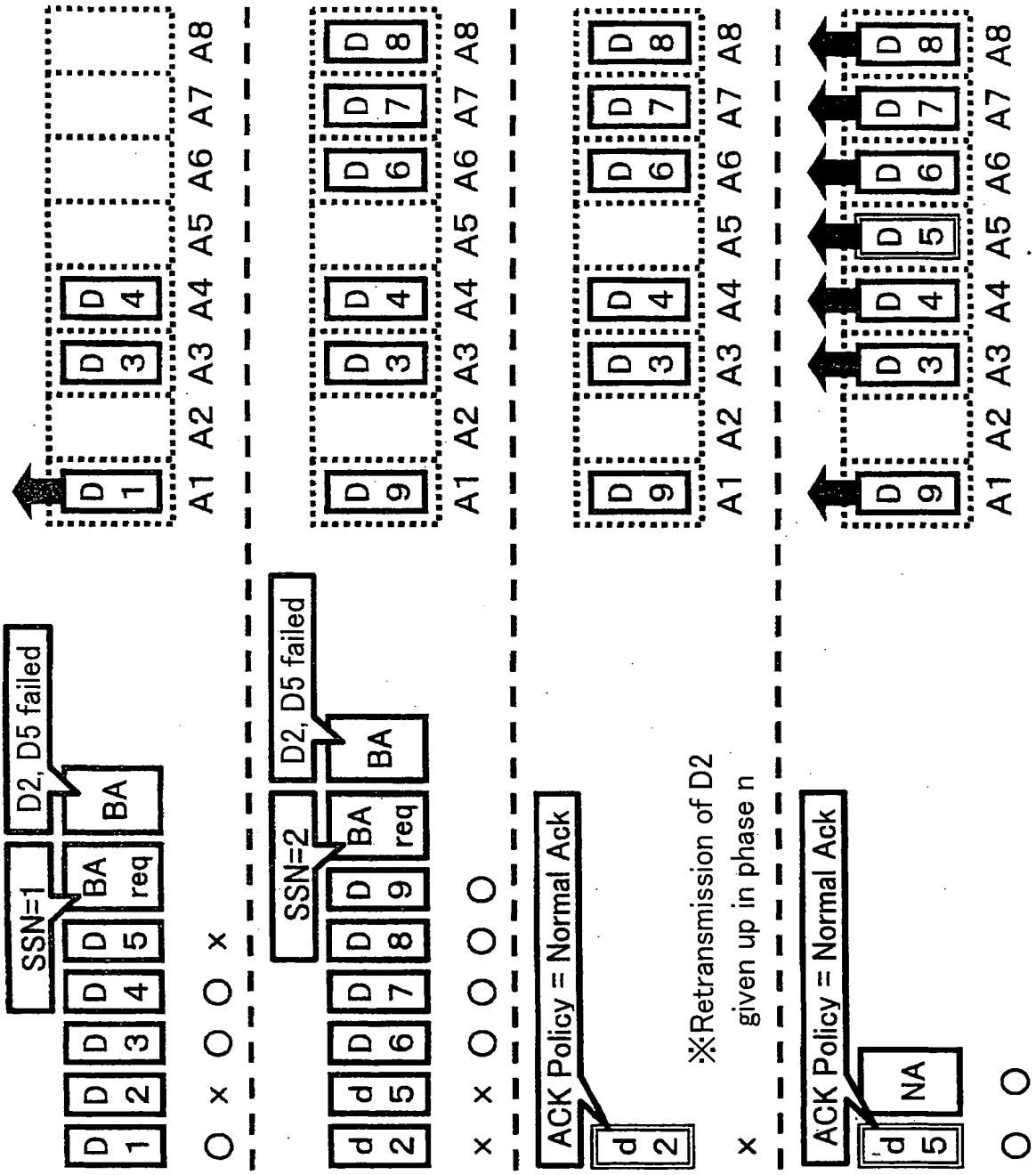

Phase 1:
D 1
D 2
D 3
D 4
D 5
BA req
BA
SSN=1
D2, D5 failed
O x O O x
A1 A2 A3 A4 A5 A6 A7 A8
Phase 2:
d 2
d 5
D 6
D 7
D 8
D 9
BA req
BA
SSN=2
D2, D5 failed
x x O O O O
A1 A2 A3 A4 A5 A6 A7 A8
Phase 3~n:
d 2
ACK Policy = Normal Ack
※Retransmission of D2 given up in phase n
x
A1 A2 A3 A4 A5 A6 A7 A8
Phase n+1:
d 5
NA
ACK Policy = Normal Ack
O O
A1 A2 A3 A4 A5 A6 A7 A8

FIG. 2

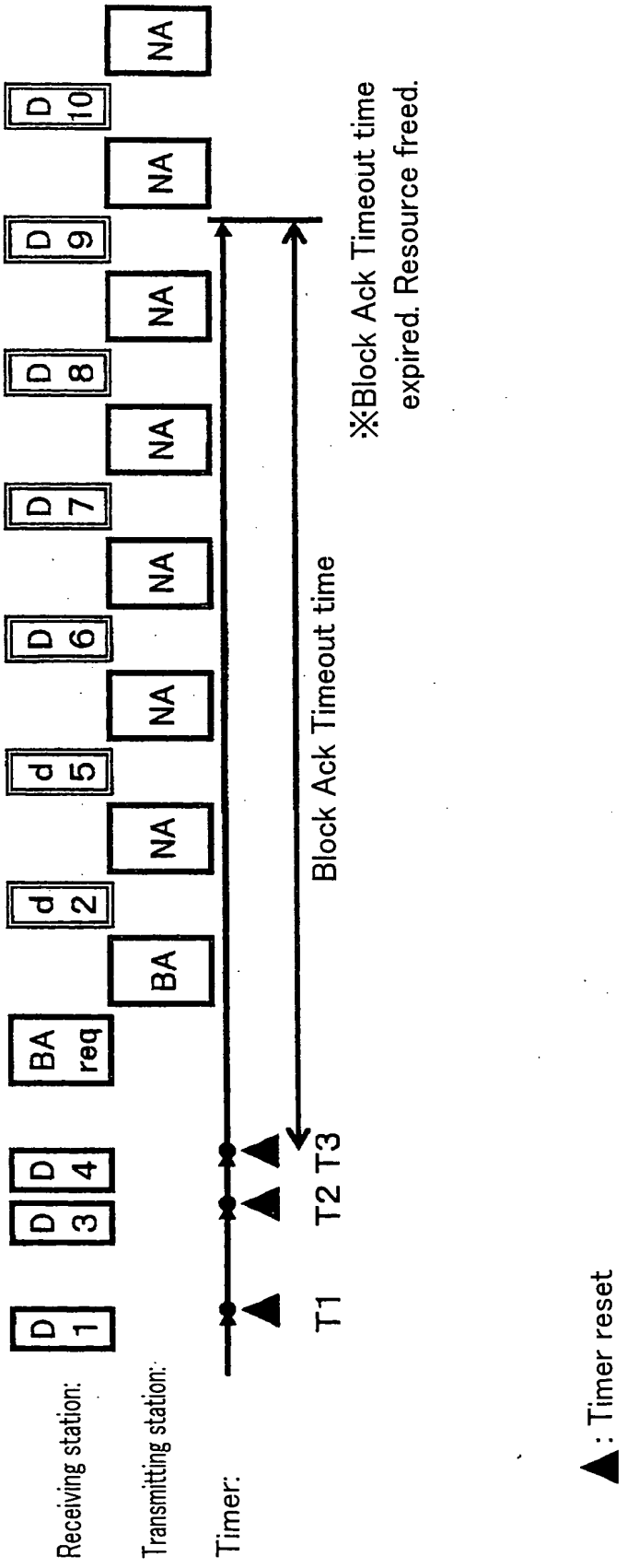

Receiving station:
Transmitting station:
Timer:
D 1
D 3
D 4
BA req
d 2
BA
NA
d 5
NA
D 6
NA
D 7
NA
D 8
NA
D 9
NA
D 10
NA
T1
T2
T3
Block Ack Timeout time
※Block Ack Timeout time expired. Resource freed.
▲: Timer reset

FIG. 3

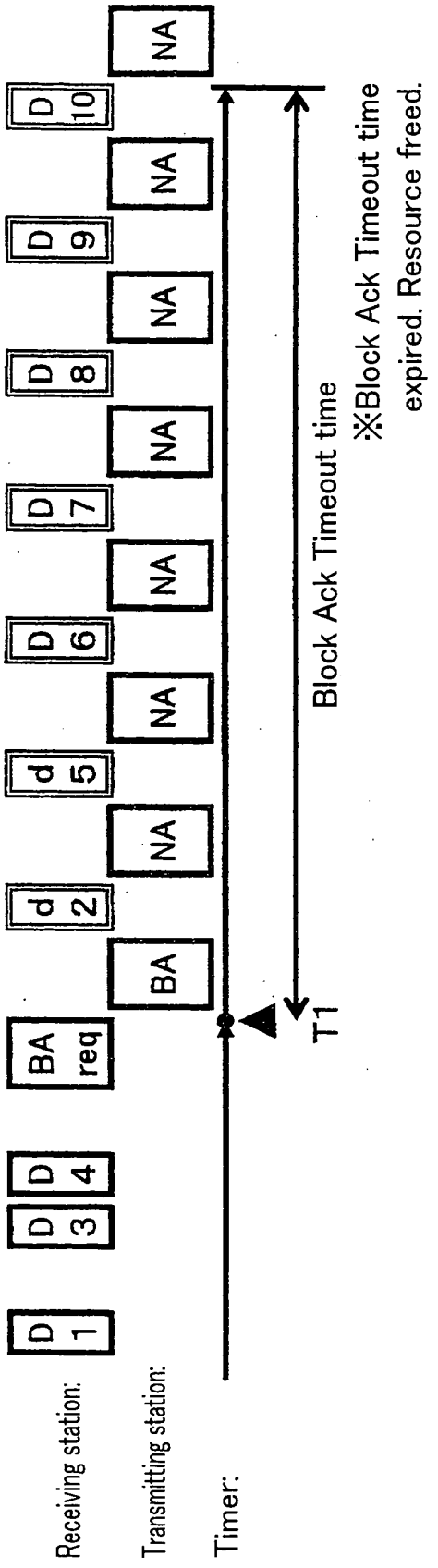
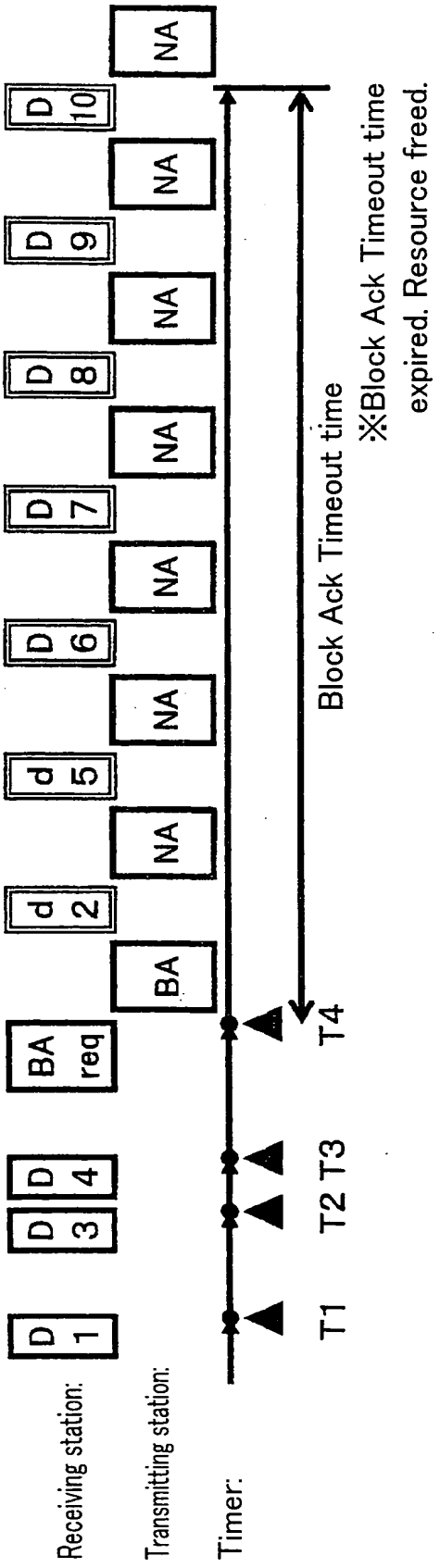

Receiving station:
Transmitting station:
Timer:
D 1
D 3
D 4
BA req
BA
d 2
NA
d 5
NA
D 6
NA
D 7
NA
D 8
NA
D 9
NA
D 10
NA
T1
Block Ack Timeout time
※Block Ack Timeout time expired. Resource freed.
▲: Timer reset

FIG. 4


Receiving station:
Transmitting station:
Timer:
D 1
D 3
D 4
BA req
BA
d 2
NA
d 5
NA
D 6
NA
D 7
NA
D 8
NA
D 9
NA
D 10
NA
T1
T2 T3
T4
Block Ack Timeout time
※Block Ack Timeout time expired. Resource freed.
▲: Timer reset

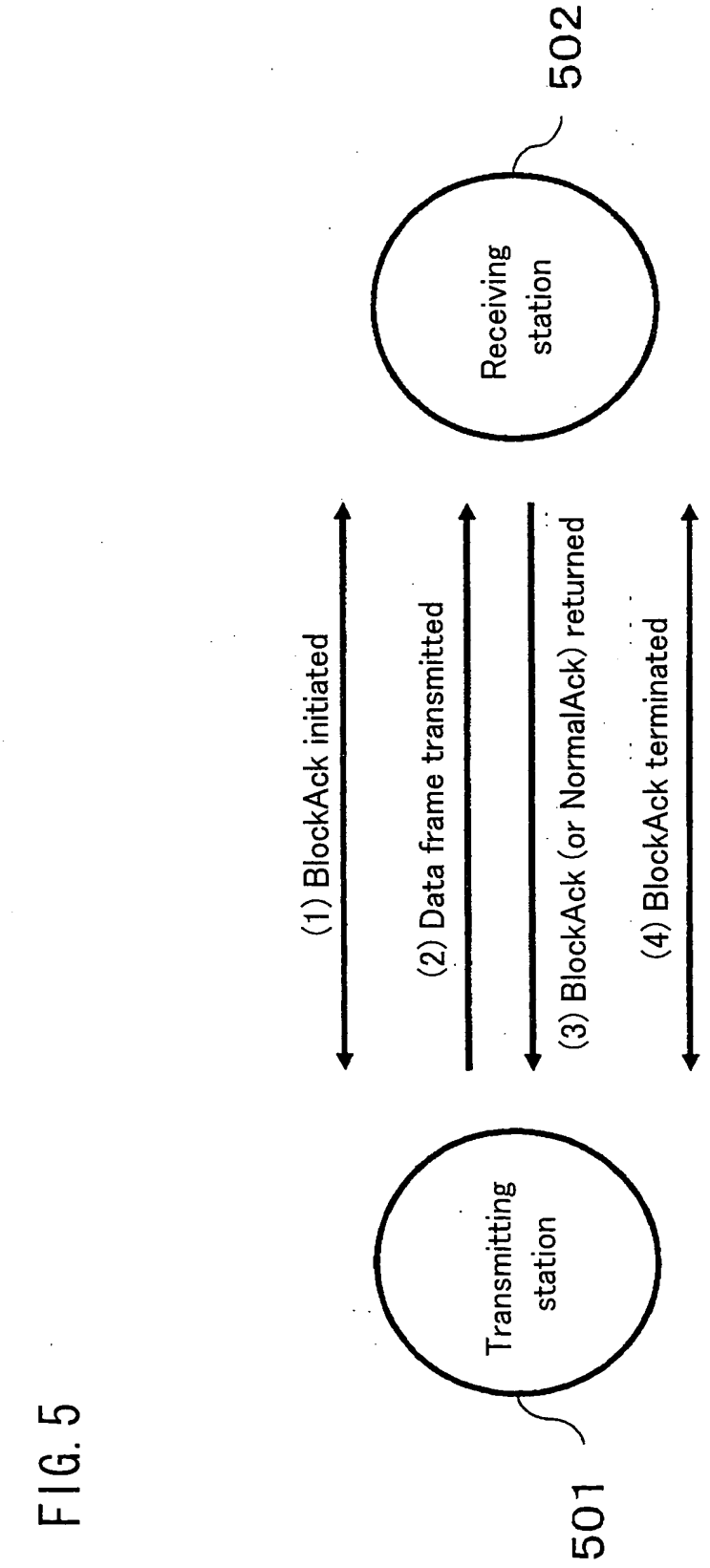

502
Receiving station
(1) BlockAck initiated
(2) Data frame transmitted
(3) BlockAck (or NormalAck) returned
(4) BlockAck terminated
Transmitting station
501

FIG. 5

FIG. 6

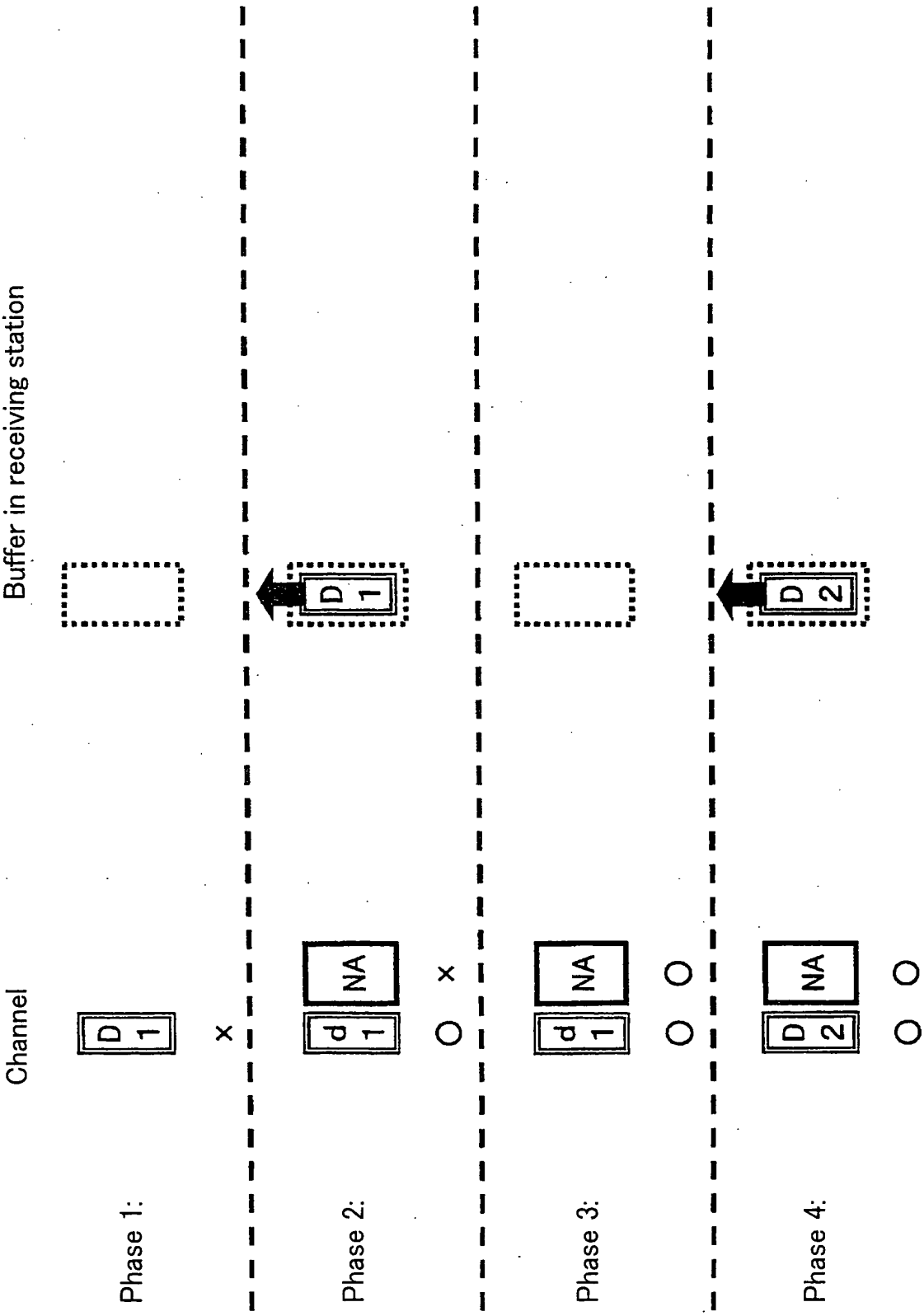

Buffer in receiving station
Channel
Phase 1:
Phase 2:
Phase 3:
Phase 4:
D 1
D 1
D 2
d 1
d 1
D 2
NA
NA
NA
x
x
O
O
O
O
O
O

FIG. 7

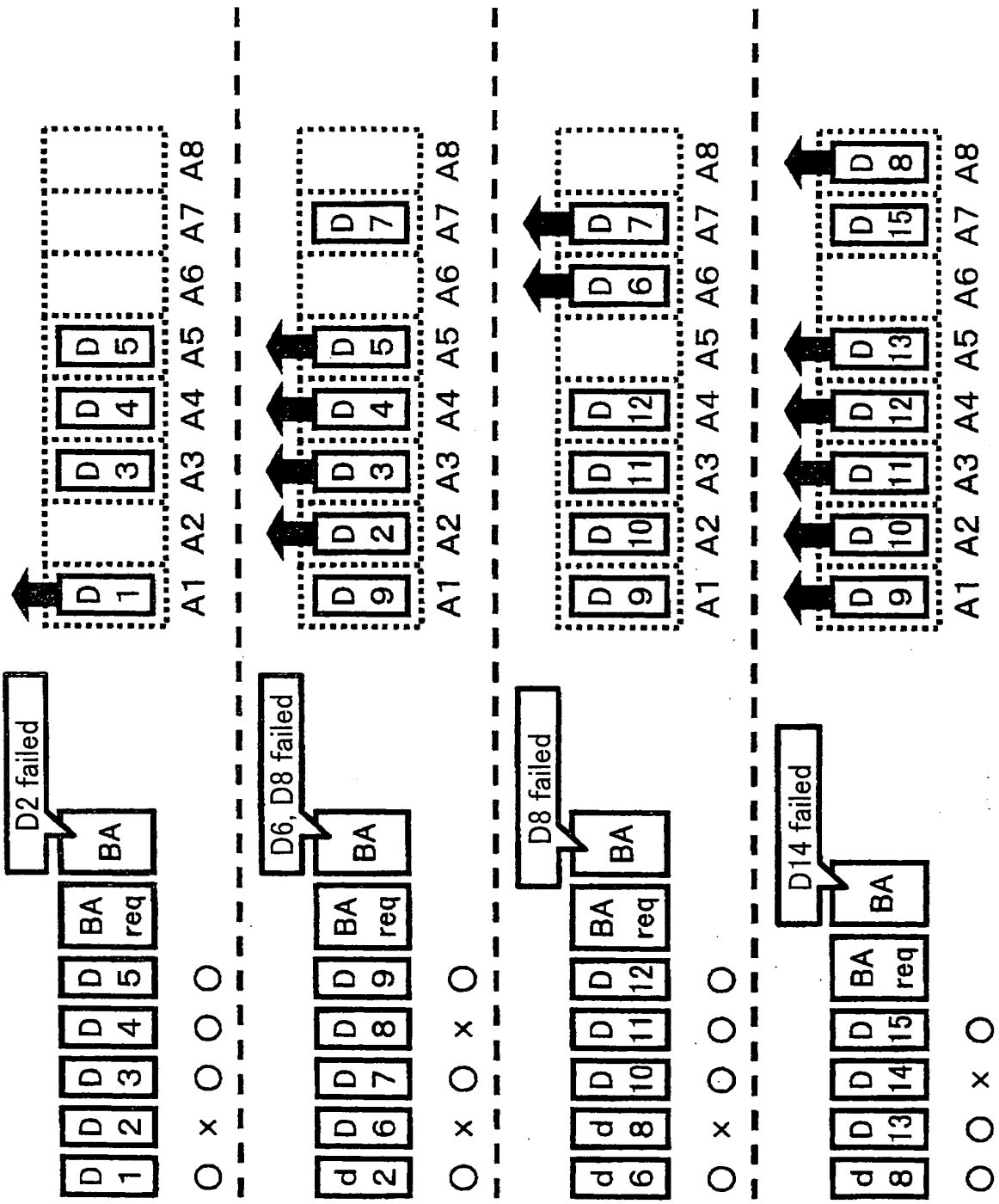

Phase 1:
D2 failed
BA
BA req
D 5
D 4
D 3
D 2
D 1
O x O O O
A1 A2 A3 A4 A5 A6 A7 A8
Phase 2:
D6, D8 failed
BA
BA req
D 9
D 8
D 7
D 6
d 2
O x O x O
A1 A2 A3 A4 A5 A6 A7 A8
Phase 3:
D8 failed
BA
BA req
D 12
D 11
D 10
d 6
O x O O O
A1 A2 A3 A4 A5 A6 A7 A8
Phase 4:
D14 failed
BA
BA req
D 15
D 14
d 13
d 8
O O x O
A1 A2 A3 A4 A5 A6 A7 A8

FIG. 8

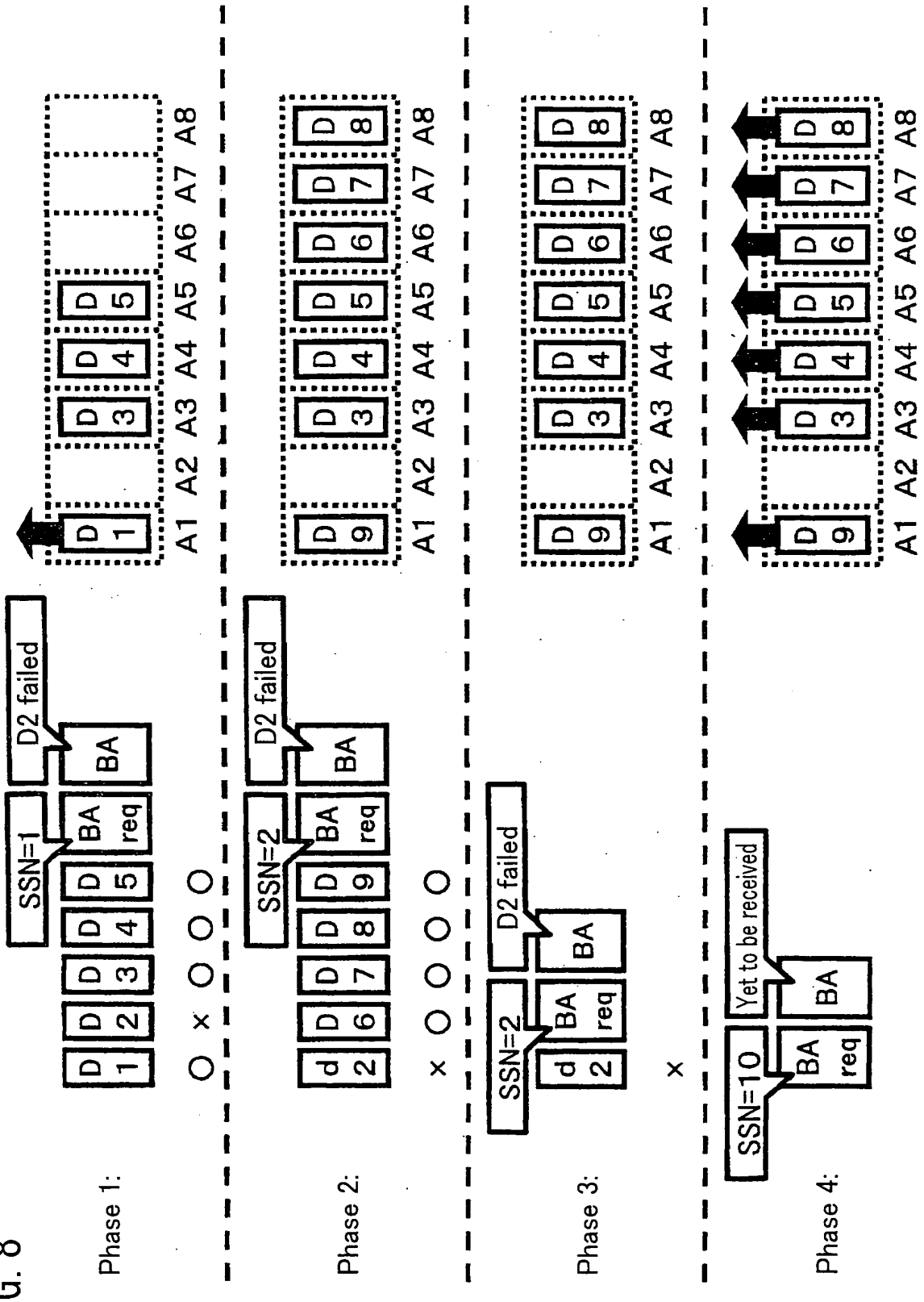

Phase 1:
Phase 2:
Phase 3:
Phase 4:
A1 A2 A3 A4 A5 A6 A7 A8
D 1
D D 2 3
D D 4 5
SSN=1
BA req
D2 failed
BA
O x O O O
D 9
D D 6 7
D D 8 9
SSN=2
x O O O O
d 2
SSN=2
Yet to be received
SSN=10
x

FIG. 9

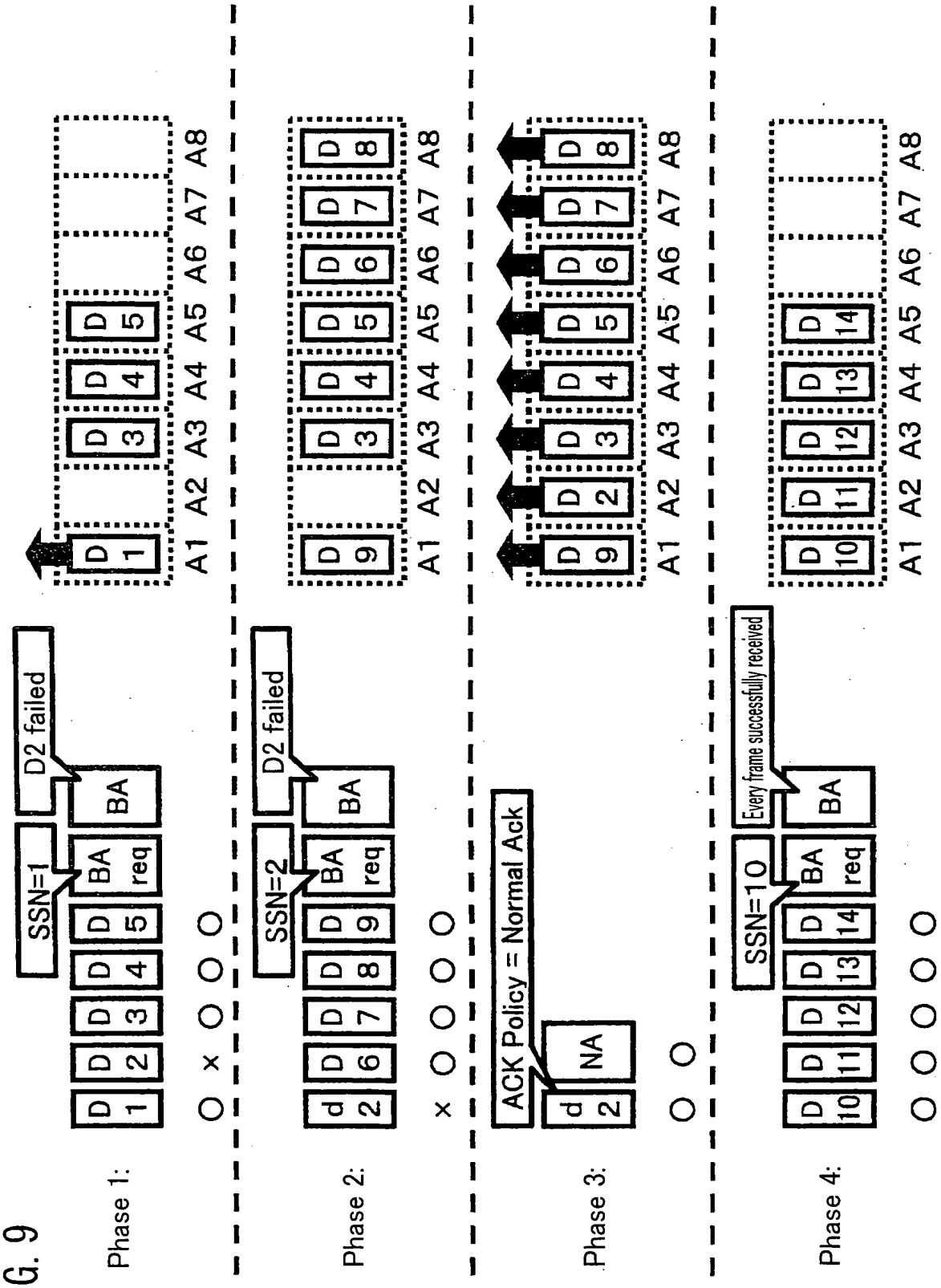

Phase 1:
SSN=1
D2 failed
BA
BA req
D 1
D 2
D 3
D 4
D 5
A1 A2 A3 A4 A5 A6 A7 A8
O x O O O
Phase 2:
SSN=2
D2 failed
BA
BA req
d 2
D 6
D 7
D 8
D 9
A1 A2 A3 A4 A5 A6 A7 A8
x O O O O
Phase 3:
ACK Policy = Normal Ack
d 2
NA
D 9
D 2
D 3
D 4
D 5
D 6
D 7
D 8
A1 A2 A3 A4 A5 A6 A7 A8
O O
Phase 4:
SSN=10
Every frame successfully received
BA
BA req
D 10
D 11
D 12
D 13
D 14
A1 A2 A3 A4 A5 A6 A7 A8
O O O O O

FIG. 10

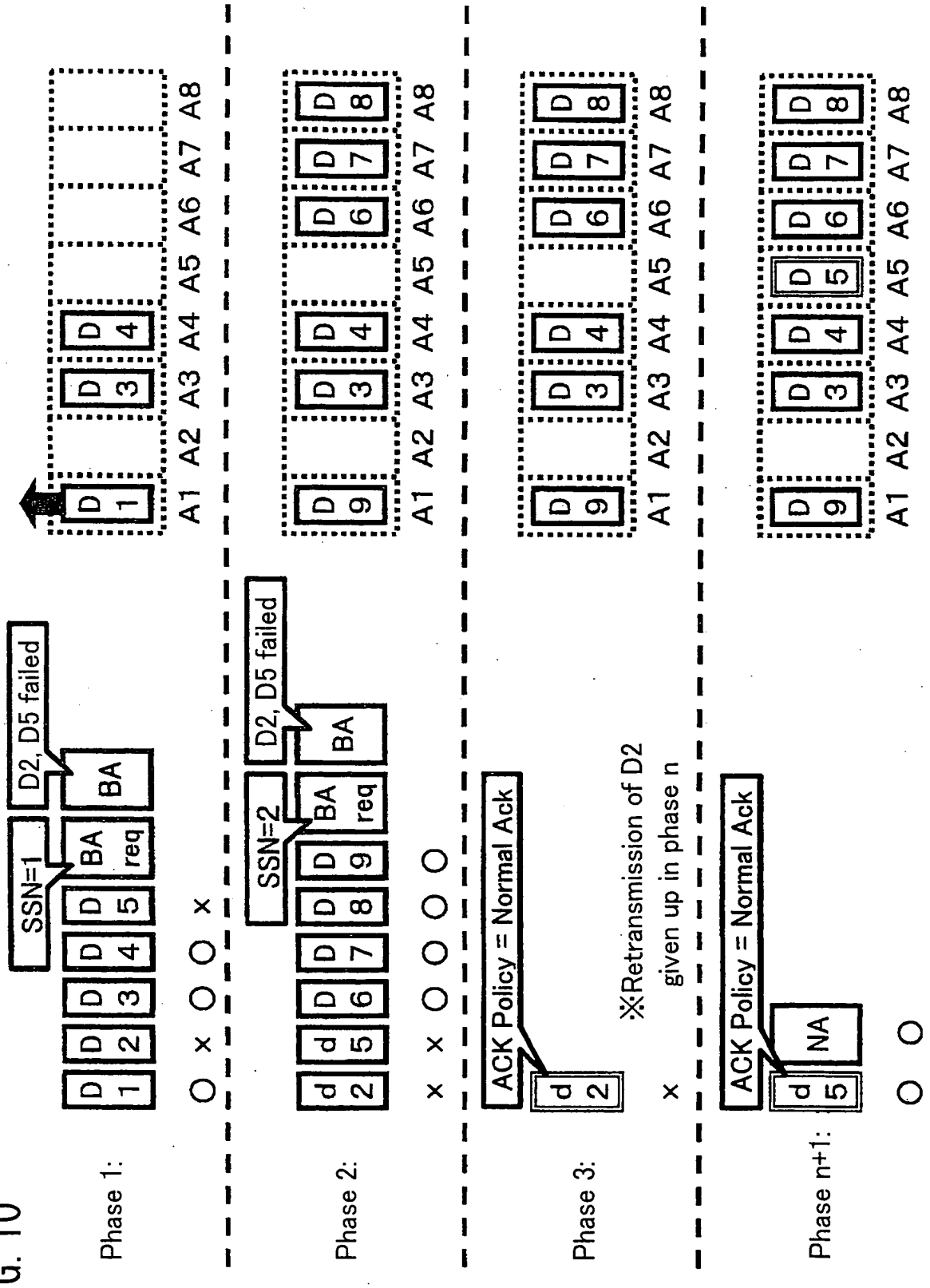

Phase 1:
SSN=1
D2, D5 failed
BA
BA req
D 1
D 2
D 3
D 4
D 5
A1 A2 A3 A4 A5 A6 A7 A8
O x O O x
Phase 2:
SSN=2
D2, D5 failed
BA
BA req
d 2
d 5
D 6
D 7
D 8
D 9
A1 A2 A3 A4 A5 A6 A7 A8
x x O O O O
Phase 3:
ACK Policy = Normal Ack
d 2
D 3
D 4
D 6
D 7
D 8
D 9
A1 A2 A3 A4 A5 A6 A7 A8
※Retransmission of D2 given up in phase n
x
Phase n+1:
ACK Policy = Normal Ack
d 5
NA
D 3
D 4
D 5
D 6
D 7
D 8
D 9
A1 A2 A3 A4 A5 A6 A7 A8
O O

FIG. 11

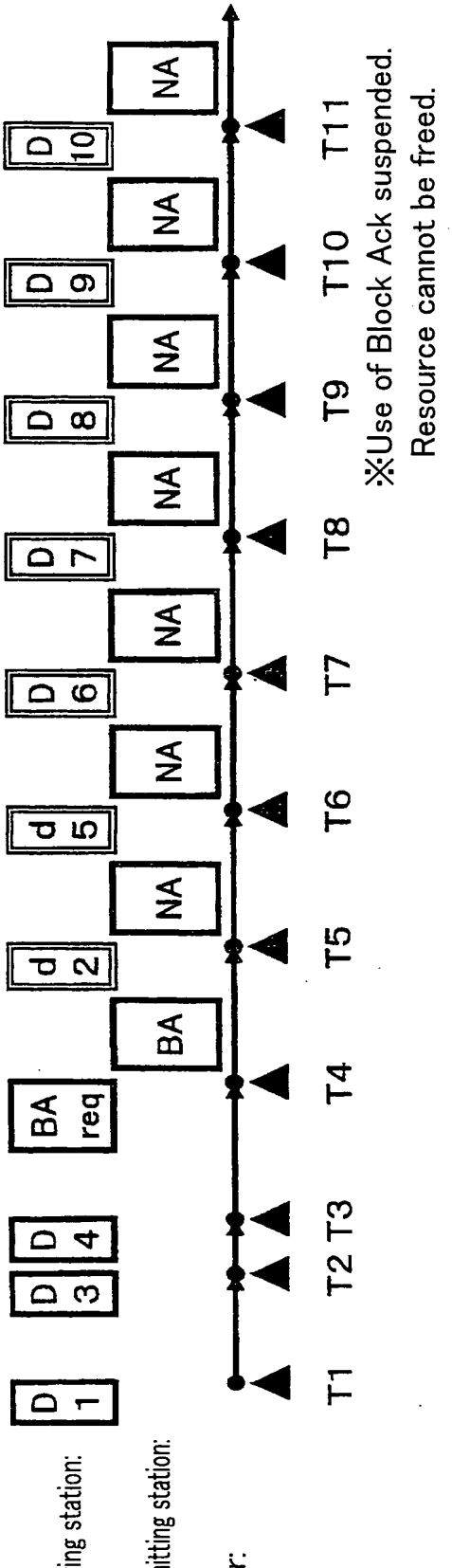

Receiving station:
Transmitting station:
Timer:
D 1
D 3
D 4
BA req
BA
d 2
NA
d 5
NA
D 6
NA
D 7
NA
D 8
NA
D 9
NA
D 10
NA
T1
T2
T3
T4
T5
T6
T7
T8
T9
T10
T11
※Use of Block Ack suspended.
Resource cannot be freed.
▲: Timer reset

FIG. 12

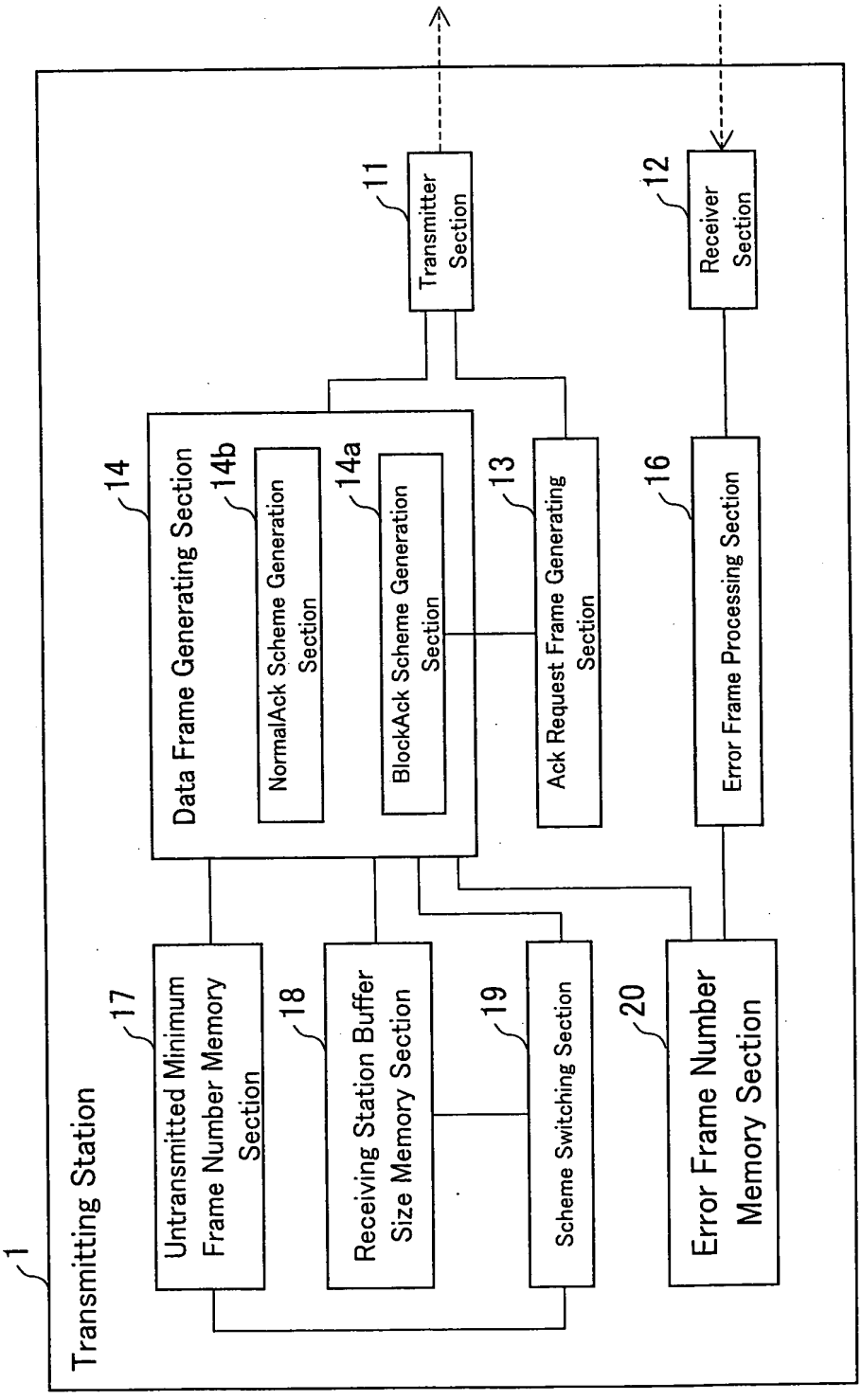

1
Transmitting Station
11
Transmitter Section
12
Receiver Section
14
Data Frame Generating Section
14b
NormalAck Scheme Generation Section
14a
BlockAck Scheme Generation Section
13
Ack Request Frame Generating Section
16
Error Frame Processing Section
17
Untransmitted Minimum Frame Number Memory Section
18
Receiving Station Buffer Size Memory Section
19
Scheme Switching Section
20
Error Frame Number Memory Section

FIG. 13

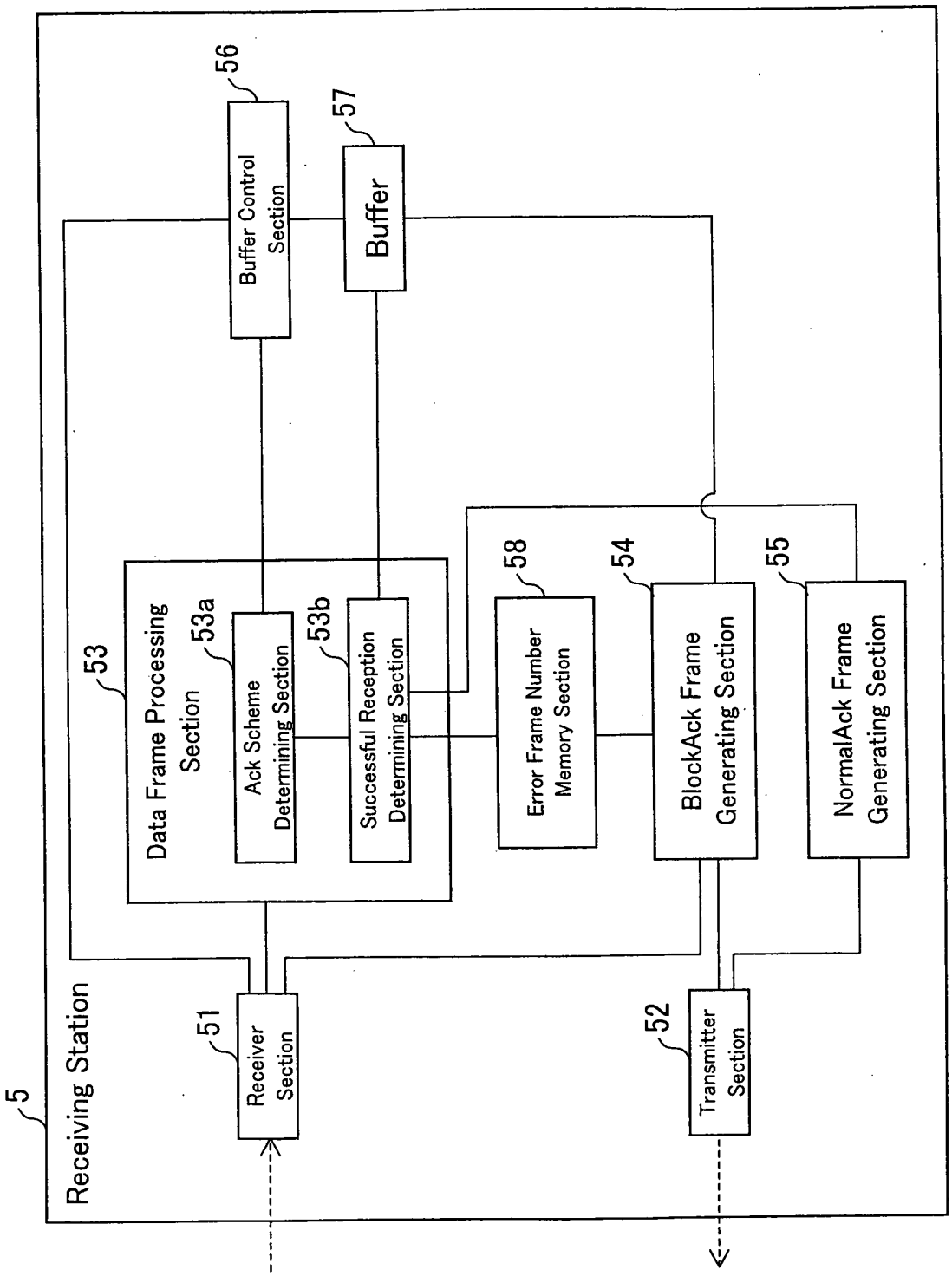
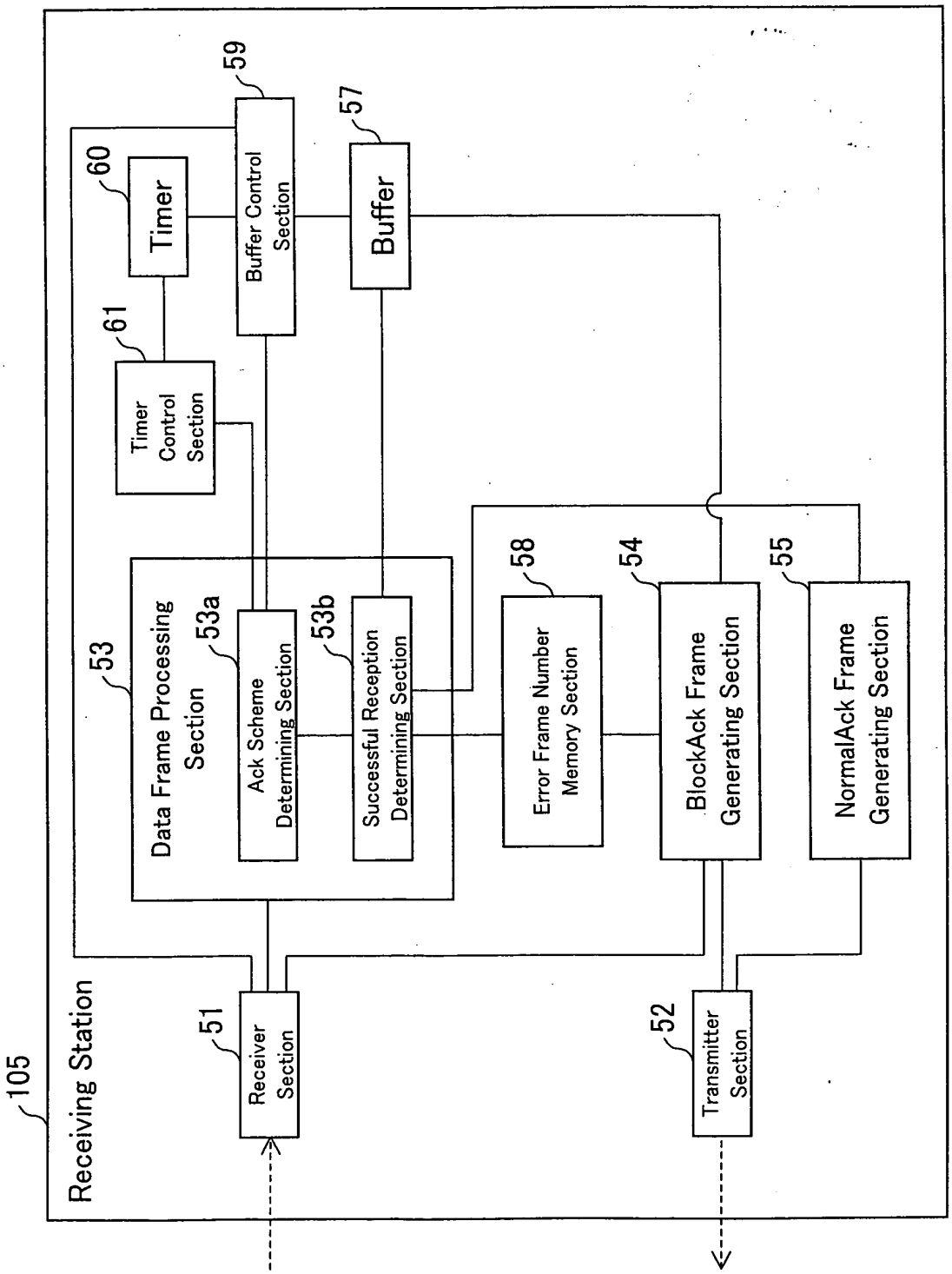

5
Receiving Station
51
Receiver Section
52
Transmitter Section
53
Data Frame Processing Section
53a
Ack Scheme Determining Section
53b
Successful Reception Determining Section
54
BlockAck Frame Generating Section
55
NormalAck Frame Generating Section
56
Buffer Control Section
57
Buffer
58
Error Frame Number Memory Section

FIG. 14


105
Receiving Station
51
Receiver Section
52
Transmitter Section
53
Data Frame Processing Section
53a
Ack Scheme Determining Section
53b
Successful Reception Determining Section
54
BlockAck Frame Generating Section
55
NormalAck Frame Generating Section
57
Buffer
58
Error Frame Number Memory Section
59
Buffer Control Section
60
Timer
61
Timer Control Section